

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000087**Date Inspected:** 09-Mar-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Bing**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Bid: 52,55 Tower & Girder**Summary of Items Observed:**

The CALTRANS Quality Assurance (QA) Inspector, Mr. Mike Hasler is present for the welding qualification testing pertinent for the welding qualification record (PQR) HP200711 scheduled for this project.

Caltrans QA Inspector, Mr. Hasler witnessed ZPMC, welder operator, Mr. Zhang Xing Jin perform flux core arc welding (FCAW)/submerged arc welding (SAW) per welding procedure specification (WPS). Caltrans QA observed ZPMC QA Inspector, Mr. Hu Gang and Quality Control (QC) Inspector, Mr. Xu Bing monitoring and supervising the testing. The PQR is identified as HP200711, WPS PWPS-B-T-223(2)-1T, and 60 mm thick test plate A-709-50F-2, heat number 6102938N with ceramic backing meeting the fracture critical requirements. The root opening of the joint measured approximately 6 mm. The PQR was performed per criteria (AWS 5.13) using the automatic FCAW and SAW process in the flat (1G) position. The welding consumables were identified as FCAW 1.4mm diameter (Supercored 71H) and SAW 4.8 mm diameter H14 electrode. ZPMC QA and QC inspectors verified dimensions for the test coupon, amperages, voltages, travel speeds, preheat and interpass temperatures. Caltrans QA inspectors recorded welding parameters for a total of 1 through 23 weld passes. Caltrans QA verified that the welding parameters taken by ZPMC QC inspector appeared to be accurate and in accordance with the contract documents

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## WELDING INSPECTION REPORT

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### Summary of Conversations:

At 1600 hours ZPMC QA Inspector, Mr. Hu Gang terminated welding after the completion of the 23rd weld pass. Mr. Gang stated that there is not enough time to complete the welding of the test plate during this work shift. Mr. Gang also stated that welding would be resumed on the test plate the following work day.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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**Inspected By:** Hasler, Mike

Quality Assurance Inspector

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**Reviewed By:** McClary, David

QA Reviewer